

Claims

- [c1] 1. A tool holder assembly for a cutting tool having an end surface and a fluid passage, the tool holder assembly comprising:
- a tool holder including:
 - a counterbore adapted to receive the cutting tool and having a bottom surface; and
 - a conduit axially aligned with the counterbore;
 - an locating member including:
 - a body portion at least partially disposed in the conduit;
 - a flange portion disposed in the counterbore adjacent to the body portion; and
 - an internal fluid passage defined by the body and flange portions; and
 - a spring configured to bias the locating member to engage the end surface to inhibit fluid leakage.
- [c2] 2. The tool holder assembly of claim 1 wherein the spring is disposed between the flange portion and the bottom surface.
- [c3] 3. The tool holder assembly of claim 1 wherein the spring is disposed between the flange portion and the conduit.

- [c4] 4. The tool holder assembly of claim 1 wherein the flange portion further comprises a chamfer disposed proximate the fluid passage and adapted to engage the end surface.
- [c5] 5. The tool holder assembly of claim 1 wherein the locating member further comprises a connection tube attached to the body portion and at least partially disposed in the conduit.
- [c6] 6. The tool holder assembly of claim 5 wherein the spring is disposed between the flange portion and the connection tube.
- [c7] 7. The tool holder assembly of claim 5 wherein the connection tube further comprises a first section at least partially disposed in the conduit and a second section at least partially disposed in the internal fluid passage.
- [c8] 8. The tool holder assembly of claim 5 wherein the flange portion has a larger diameter than the connection tube.
- [c9] 9. The tool holder assembly of claim 1 wherein the flange portion has a larger diameter than the body portion.
- [c10] 10. The tool holder assembly of claim 1 further compris-

ing a seal disposed between the flange portion and the end surface.

- [c11] 11. A tool holder assembly for a cutting tool having an end surface and a fluid passage, the tool holder assembly comprising:
- a tool holder including:
 - a counterbore adapted to receive the cutting tool and having a bottom surface; and
 - a conduit axially aligned with the counterbore;
 - an locating member including:
 - a body portion at least partially disposed in the conduit;
 - a flange portion having a larger diameter than the body portion disposed in the counterbore adjacent to the body portion; and
 - an internal fluid passage defined by the body and flange portions;
 - a connection tube disposed proximate the body portion and the conduit; and
 - a spring configured to bias the locating member to engage the end surface to inhibit fluid leakage.
- [c12] 12. The tool holder assembly of claim 11 wherein the connection tube is integrally formed with the locating member.
- [c13] 13. The tool holder assembly of claim 11 wherein the

connection tube further comprises a first section and a second section disposed proximate the first section and having a smaller diameter than the first section.

[c14] 14. The tool holder assembly of claim 13 wherein the second section is disposed at least partially in the internal fluid passage.

[c15] 15. The tool holder assembly of claim 13 wherein the spring is configured to engage the flange portion and the first section.

[c16] 16. The tool holder assembly of claim 11 wherein the spring is configured to engage the flange portion and the bottom surface.

[c17] 17. The tool holder assembly of claim 11 wherein the spring is configured to engage the flange portion and the conduit.

[c18] 18. A tool holder assembly for a cutting tool having an end surface and a fluid passage, the tool holder assembly comprising:
a tool holder including:
a counterbore adapted to receive the cutting tool and having a bottom surface; and
a conduit axially aligned with the counterbore and having a first inside diameter and a second inside diameter;

an locating member including:
a body portion at least partially disposed in the conduit;
a flange portion disposed in the counterbore adjacent to the body portion; and
an internal fluid passage defined by the body and flange portions;
a connection tube at least partially disposed in the conduit; and
a spring configured to bias the locating member to engage the end surface to inhibit fluid leakage.

[c19] 19. The tool holder assembly of claim 18 wherein the first inside diameter is smaller than the second inside diameter.

[c20] 20. The tool holder assembly of claim 19 further comprising an engagement surface disposed proximate the first and second inside diameters wherein the spring is configured to engage the flange portion and the engagement surface.